

ABSTRACT OF THE DISCLOSURE

A floating point unit generates results in which status information generated for an operation is encoded within the resulting operand, instead of requiring a separate floating point status register for the status information. In one embodiment, a floating point operand data structure comprises a first portion having floating point operand data and a second portion having embedded status information associated with at least one status condition of the operand data. The status condition may be determined from only the embedded status information. The status condition may also be associated with at least one floating point operation that generated the operand data structure. The outcome of a conditional floating point instruction may be based on the embedded status information without regard to contents of the floating point status register. The second portion of the data structure may also have at least one bit indicative of the status condition, such as an invalid operation status, an overflow status, an underflow status, a division by zero status, an infinity status, and an inexact status.